ABSTRACT

An element such as Cr is caused to dissolve sufficiently in a base-material metal (Cu) in a solid solution state at a high temperature and a material in a supersaturated condition is obtained by performing quenching. After that, a strain is applied to this material and this material is subjected to aging treatment at a low temperature simultaneously with or after the application of this strain. As a result of this, it is possible to obtain a copper alloy having properties desirable as an electrode material, for example, a hardness of not less than 30 HRB, an electrical conductivity of not less than 85 IACS%, and a thermal conductivity of not less than 350 W/(m·K).